



T2315-905383

#35/Dec
4-6-2

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Appeal No. : 2000-0300

Appellant : Russell F. MIZELL, III

Serial No. : 08/654,600

Filed : May 29, 1996

For : INSECT ATTRACTION AND CAPTURE DEVICE

Art Unit : 3643

Examiner : Kurt Rowan

Declaration Under 37 CFR § 1.132

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Hon. Commissioner of Patents & Trademarks
Washington, D.C. 20231

Sir:

I, Dr. Russell F. Mizell, herein declare:

- 1) That I am the above-named inventor.
- 2) That I have read and understand the Official Letter dated October 2, 2001
- 3) That, in order to demonstrate the unobvious and unexpected results associated with the use of the stinkbug trap claimed in the above-identified patent application when compared with the trap disclosed by Tedders I conducted the following field trials:

Below are data on stink bug captures in peach and blackberry using the claimed stink bug trap with and without pheromone bait as compared with the Tedders. Please note that the top used on the Tedders trap in these tests is the one from the stink bug trap.

The boll weevil trap top used on the Tedders trap for weevils by Tedders and Wood (1994) will not physically allow stink bugs of any species to enter the trap because the entrance hole is much too small (<5mm) in diameter. If the hole is enlarged the stink bugs still will not enter it because of the low light penetration. The Tedders trap will not catch stink bugs without modification to the entrance hole and will not catch stink bugs in any frequency under any circumstances due to the quality and quantity of light penetrating the top. The hole in the stink bug top is approximately 3-4cm in diameter. Because of these facts direct comparison of the Tedders trap (Tedders and Wood 1994) to the Florida stink bug trap are impossible because the Tedders will not capture any stink bugs in its originally described form.

Table 1: Mean \pm SE number of *Euschistus servus* (Say) per trap per day collected in the stink bug trap in peaches at Monticello, FL in 1995. Traps were deployed within the rows in six different peach cultivars with 3 replicates/cultivar each of the yellow 4', yellow 2' and dark 4' traps. Traps were checked ca. every three days from Feb. 15 - Ag. 15, 1995 and the contents were removed and recorded. Pheromone was not used in this experiment. Note Tops on all traps were stink bug types made of screen and not the boll weevil tops used on the Tedders trap.

Trap Type	Mean \pm SE/Trap/Day
Yellow 4'	0.034 \pm 0.004 A ¹
Yellow 2'	0.016 \pm 0.003 B
Dark 4' (Tedders ²)	0.011 \pm 0.004 13

¹Means not followed by same letter are significantly different as determined by DNMRT, P=0.05.

²Tedders bottom with stink bug top.

Table 2: Mean \pm SE number of *Euschistus servus* (Say) per trap per day collected in the stink bug trap in blackberries at Monticello, FL in 1995. Fourteen 4' traps in a completely random design were deployed within the rows (4 rows ca. 50m long) with 2 replicates each of 7 colors: yellow, green, blue, black, white, red, and aluminum foil. Traps were checked ca, every three days from Feb. 15 - Aug. 15, 1995 and the contents were removed and recorded. Pheromone was not used in this experiment. Note: Tops on all traps were stink bug type made of screen and not the boll weevil tops used on the Tedders by (Tedders and Wood 1994).

Trap Color Mean \pm SE/Trap/Day

Yellow	0.13 \pm 0.03 A ₁
Green	0.10 \pm 0.02 AB
Blue	0.05 \pm 0.02 BC
Red	0.04 \pm 0.01 C
White	0.04 \pm 0.01 C
Black	0.03 \pm 0.01 C

Aluminum foil 0.03 \pm 0.01 C

Table 3: Number of *Euschistus servus* (Say) captured in the stink bug trap in peaches at Monticello, FL in 1996. Traps in a completely random design were deployed within the rows 8 replicates each of 3 colors: yellow, black and aluminum foil. Traps were checked ca. every three days from Feb. 15 - Aug. 15, 1995 and the contents were removed and recorded. Pheromone was used in this experiment. Note: Tops on all traps were stink bug type made of screen and not the boll weevil tops used on the Tedders by (Tedders and Wood 1994). The Chi Square value was 11.88, P=0.005 indicating significant difference in capture rate by the trap types.

<u>Color</u>	<u>Total Captured</u>
Black(Tedders)	97
Aluminum foil	85

Table 4: Number of *Euschistus servus* (Say) captured in the stink bug trap in peaches at Monticello, FL in 1997. Traps in a completely random design were deployed within the rows 3 replicates each of 3 colors: yellow, black and aluminum foil. Traps were checked ca. every three days from Feb. 15- Aug. 15, 1995 and the contents were removed and recorded. Pheromone was used in this experiment. Note: Tops on all traps were stink bug type made of screen and not the boll weevil tops used on the Tedders

by (Tedders and Wood 1994), The Chi Square value was 3.10, P<0.1 indicating significant difference in capture rate indicating differences in capture rate by the trap types.

<u>Color</u>	<u>Total Captured</u>
Yellow	163
Black (Tedders)	136
Aluminum foil	138

4) Further, deponent sayeth not.

I hereby declare that all statements made herein of my knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Respectfully submitted,

2-Apr-02
Date


Russell F. Mizell, III